

REMARKS

Claims 3-4, 14-15, and 18-20 have been cancelled, and claims 1, 2, 7 and 13 have been amended to more definitely set forth the invention and obviate the rejection. Support for the amendments of claims 1, 2, 7 and 13 can be found in the Specification on pages 4, lines 17-23, page 7, lines 8-12, and page 15, last line. The present amendment is deemed not to add new matter. Claims 1-2, 5-13 and 16-17 remain in the application.

Reconsideration is respectfully requested of the rejection of claims 1 and 7 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 7 have now been amended herein to recite first dissolving in an aqueous solvent a hydrophilic compound capable of forming a gel "through heating", and then allowing the resultant mixture to stand until the temperature of the mixture becomes lower. It is believed that, in view of these amendments to claims 1 and 7, the rejection is now moot. Withdrawal of the rejection is accordingly respectfully requested.

Reconsideration is respectfully requested of the rejection of claim 1-5 under 35 U.S.C. 102(b) as being anticipated by Okura, et al. (USP 5,360,624).

The cited Okura, et al. reference discloses an emulsion-type food, wherein part or all of the fat contained therein is substituted by a pulverized gel made from curdlan. In addition to the pulverized, curdlan-derived gel, Okura, et al. teach that "other raw materials of food can be added before the above gelation or pulverization step" (see column 3, lines 45-48). For example, raw food materials extracted from marine plants, e.g., agar, carrageenan, salt of alginic acid, furcellaran, etc., may be used (see column 3, lines 50-51).

However, Okura, et al. teaches that these additional raw food materials extracted from marine plants are added merely as other raw materials of food. That is, the gel disclosed in Okura contains curdlan as the mandatory (principle) component, and even if agar or carrageenan, for example, is added to the mixture, agar or carrageenan are simply additional optional elements of the curdlan-derived gel. Further, Okura, et al. teaches that the amount of same must be limited, such that “they are used in such amounts that sufficient swelling of curdlan is not disturbed when they are added before the gelation step of curdlan” (see column 4, lines 3-5).

In contrast, in the present invention, as called for in now amended claim 1, a hydrophilic compound *selected from the group consisting of agar, gelatin, gellan gum, and alginic acid* is dissolved in an aqueous solvent *by heating* to form a mixture, the resultant mixture is allowed to stand until the temperature of the mixture becomes lower than the gelation temperature to thereby form a gel in the present invention (i.e., the mixture containing a hydrophilic compound capable of forming a gel is hardened in the form of “a block” (a chunk of a gel is obtained). Then, the gel is pulverized into a microgel.

Further, as now called for in amended claim 2, the microgel of the present invention is produced by the process of claim 1, wherein, in the first step, both the hydrophilic compound, as well as a viscosity increasing compound incapable of forming a gel selected from xanthan gum, succinoglycan, polyacrylic acid, polyethylene glycol, polyacrylamide, and/or a polyalkylacrylamide/polyacrylamide copolymer, is dissolved in the aqueous solvent. Importantly, carrageenan and curdlan, as called for by Okura, et al., are *not* included in the hydrophilic compound now claimed herein in base claim 1.

Further, Okura, et al. fail to teach or suggest that the microgel thereof is produced by pulverizing a gel comprised solely of agar, gelatin, gellan gum and/or alginic acid, or a gel comprised solely of (1) agar, gelatin, gellan gum and/or alginic acid, and (2) xanthan gum, succinoglycan, polyacrylic acid, polyethylene glycol, polyacrylamide, and/or a polyalkylacrylamide/polyacrylamide copolymer. Unlike the present invention, in Okura, et al., the curdlan gel is used as a fat component substitute in emulsion-type food, and there is no mention or suggestion whatsoever that such microgel can be used in an external composition. Moreover, Okura, et al. fails to teach or suggest that inclusion of the microgel in an external composition provides high viscosity, good sensation during use (no sticky sensation during use), and exhibits excellent long-term stability. Rather, these teachings come only from the present invention, and constitute important elements or aspects thereof.

Unlike the microgel of Okura, et al., which is used in foods, the microgel of the present invention exhibits excellent characteristics as a viscosity control agent for use in cosmetic compositions and drugs. In particular, the microgel of the present invention is available as a viscosity control agent, and can increase the viscosity of an external composition when it is incorporated therein. For example, even where the external composition contains a pharmaceutical ingredient or salt, the viscosity of the composition is not undesirably lowered. That is, when the microgel of the present invention is incorporated, an external composition having excellent resistance to a salt or a pharmaceutical ingredient can be obtained.

In view of the amendments to claims 1 and 2 herein, as well as the deficiencies of the Okura, et al. reference pointed out above, it is believed that the Okura, et al. reference now fails to anticipate the claims herein. Withdrawal of the rejection is accordingly respectfully requested.

Reconsideration is respectfully requested of the rejection of Claims 1-17 under 35 U.S.C. 103(a) as being unpatentable over Okura, et al., in view of Hayashi Tadanobu (JP 4279509, hereinafter "Hayashi), and further in view of Murata, et al. (USPA 2002-0006414, hereinafter "Murata").

The Okura, et al. reference is discussed above in detail. As the Examiner has conceded on page 5, paragraph 5, of the instant Office Action, Okura, et al. fail to disclose the viscosity range claimed herein in claims 6 and 17. To cure this deficiency, the Examiner has cited Hayashi and Murata, et al.

Hayashi discloses an O/W-type emulsion cosmetic containing xanthan gum and/or locust bean gum and iota-carrageenan, having a static viscosity of 5,000-35,000cp at 25°C. The emulsion of Hayashi contains iota-carrageenan as the mandatory component, which is *not* included in the microgel recited in now amended claims 1, 2, 7, and 13 of the present application. In contrast to the instantly claimed invention, Hayashi does not describe that a microgel is produced by pulverizing a gel of agar, gelatin, gellan gum, and/or alginic acid, or a gel comprised of both of agar, gelatin, gellan gum, and/or alginic acid, and xanthan gum, succinoglycan, polyacrylic acid, polyethylene glycol, polyacrylamide, and/or a polyalkylacrylamide/polyacrylamide copolymer.

Further, Hayashi fails to teach or suggest that such a microgel has excellent viscosity increasing properties, and, an external composition containing such microgel would have a high viscosity, such as 50,000 mPa·s or 400,000 mPa·s, provides good sensation during use, and exhibits excellent long-term stability. In contrast, as illustrated in Examples 9 and 18, and as shown in Tables 1-2, 2-2, 3-2 and 4-2, the microgel of the present invention, as claimed in

amended claims 1 and 2 herein, exhibits excellent viscosity increasing properties.

Specifically, the microgel of the present invention can be utilized in an external composition to provide same with a high viscosity (viscosity of composition at 25°C in a range between 50,000 mPa·s (Example 9) and 400,000 mPa·s (Example 18), as shown in Tables 1-2, 2-2, 3-2, 4-2), thereby providing good sensation during use (no sticky sensation during use), and exhibiting excellent long-term stability.

The cited secondary reference of Murata, et al. discloses an external composition for skin comprising sphingoglycolipid. As the Examiner has pointed out, Murata, et al. describe that the external composition can contain whitening agent ([0023]), anti-inflammatory agent ([0074]), Vitamin E ([0085], as an example of whitening agent), carrageenan ([0085], as an example of thickener), alginate ([0085], as an example of thickener), or polyacrylate ([0082], as an example of powdery agent).

Although the composition shown in Table 1 of Murata, et al. may contain “agar”, Table 1 in Murata, et al. illustrates test results of an identification procedure for obtaining white mutant strains and initial strains (IAM 12576), according to “A Guide for Medical Bacterial Identification (3rd edition)” (see paragraph [0093]). Accordingly, “agar”, as described in Table 1, appears to refer to a culture medium. Thus, it is believed that Murata, et al. does not teach or suggest that the *external composition* can contain agar, or a *microgel produced by pulverizing a gel of agar*.

In particular, unlike the present invention, it is believed that Murata, et al. fails to teach a microgel produced by pulverizing gel of agar, gelatin, gellan gum, and/or alginic acid, or produced by pulverizing a gel of agar, gelatin, gellan gum and/or alginic acid, and

xanthan gum, succinoglycan, polyacrylic acid, polyethylene glycol, polyacrylamide, and/or a polyalkylacrylamide/polyacrylamide copolymer. Further, Murata, et al. fail to teach or suggest that such a microgel has excellent viscosity increasing properties, and an external composition containing such microgel has high viscosity, provides good sensation during use, and exhibits excellent long-term stability.

The unobviousness of a composition can also be established by the properties it imparts to the article to which it is applied. *Ex parte Schibler, et al.* 131 USPQ 234 (POBA 1961). It is respectfully submitted that the combination of cited references, either alone or in combination, fail to teach or suggest that the microgel of the present invention, as now claimed in amended claims 1, 2, 7 and 13, provides excellent viscosity increasing properties, **imparts same to an external composition when added thereto**, or that said microgel provides good sensation during use (no sticky sensation during use) and exhibits excellent long-term stability. Rather, these teachings come only from the present invention, and constitute important elements or aspects thereof.

In view of the amendments to the claims presented herein, the deficiencies of the cited references pointed out above, and the above cited authorities, it is believed that the Examiner would be justified in no longer maintaining the rejection. Withdrawal of the rejection is accordingly respectfully requested.

Reconsideration is respectfully requested of the provisional rejection of claims 1 and 3-5 on the ground of obviousness-type double patenting as being unpatentable over claims 1-4 of copending Application No. 10/501,462.

Claims 1-4 of copending application serial No. 10/501,462 are as follows:

1. A water-in-oil emulsified composition comprising:

- (a) 0.1-20 wt% organophilic clay mineral,
- (b) 10-70 wt% oil component,
- (c) 0.01-10 wt% emulsifier having an HLB value of not more than 7, and
- (d) 0.1-90 wt% microgel having an average particle size of 0.1-1,000 micrometers obtained by dissolving a hydrophilic compound having a gelation ability in water or an aqueous component, letting it cool down and solidify to form a gel, and pulverizing said gel.

2. The water-in-oil emulsified composition of claim 1, wherein the average particle size of the microgel of (d) ingredient is 1-300 micrometers.

3. The water-in-oil emulsified composition of claim 1 wherein, in (d) ingredient, the hydrophilic compound having gelation ability is one or more selected from the group consisting of agar, carrageenan, curdlan, gelatin, gellan gum, and alginic acid.

4. An emulsified cosmetic comprising the water-in-oil emulsified composition of claim 1.

As shown above, claims 1-4 of copending Application No. 10/501,462, are directed to a W/O-type emulsified composition containing clay mineral, oily ingredient, emulsifying agent having HLB of 7 or less, and a microgel. However, claims 1-4 of copending application serial No. 10/501,462, are *not* directed to a *process* for producing said microgel. Rather, the scope of claims 1-4 includes a product/product-by-process. Further, the W/O-type emulsion composition of claims 1-4 of copending application serial No. 10/501,462 include additional elements, i.e., the organophilic clay mineral, oil component, and emulsifier, none of which are claimed herein. Thus, it is respectfully

submitted that the scope of the claims 1-4 of copending application serial No. 10/501,462, vary greatly from the claims herein.

In addition, it is respectfully pointed out that the instant application was filed on November 6, 2001, and that the cited 10/501,462 application was filed on July 14, 2004. Thus, it is respectfully submitted that the 10/501,462 application does not constitute prior art herein, and thus is ineffective to render the claims of the instant application unpatentably obvious.

In view of the differences between the claims of application serial No. 10/501,462, and the claims as amended herein, as pointed out above, it is respectfully submitted that claims 1 and 3-5 herein are not obvious in view of the subject matter of claims 1-4 of the cited reference. Further, it is respectfully submitted that application serial No. 10/501,462 is a later filed application, and thus it is believed that it is improper to apply a double patenting rejection to the instant application based thereon. Accordingly, withdrawal of the rejection is accordingly respectfully requested.

In view of the foregoing, it is respectfully submitted that the application is now in condition for allowance, and early action and allowance thereof is accordingly respectfully requested. If there is any reason why the application cannot be allowed at the present time, it is respectfully requested that the Examiner contact the undersigned at the number listed below to resolve any problems.

Respectfully submitted,

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CERTIFICATE OF TRANSMISSION

I hereby certify that this facsimile transmission, consisting of a 13-page Amendment in U.S. patent application serial No. 09/936,317, filed November 6, 2001, is being facsimile transmitted to the U.S. Patent and Trademark Office (Fax no. 571-273-8300) on July 23, 2007.

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